

## § 23.1445

which is the tracheal pressure displaced by water vapor pressure when the breathed air becomes saturated with water vapor at 37 °C).

(2) STPD means Standard, Temperature, and Pressure, Dry (which is, 0 °C at 760 mm. Hg with no water vapor).

[Doc. No. 26344, 58 FR 18978, Apr. 9, 1993]

### § 23.1445 Oxygen distribution system.

(a) Except for flexible lines from oxygen outlets to the dispensing units, or where shown to be otherwise suitable to the installation, nonmetallic tubing must not be used for any oxygen line that is normally pressurized during flight.

(b) Nonmetallic oxygen distribution lines must not be routed where they may be subjected to elevated temperatures, electrical arcing, and released flammable fluids that might result from any probable failure.

[Doc. No. 26344, 58 FR 18978, Apr. 9, 1993]

### § 23.1447 Equipment standards for oxygen dispensing units.

If oxygen dispensing units are installed, the following apply:

(a) There must be an individual dispensing unit for each occupant for whom supplemental oxygen is to be supplied. Each dispensing unit must:

(1) Provide for effective utilization of the oxygen being delivered to the unit.

(2) Be capable of being readily placed into position on the face of the user.

(3) Be equipped with a suitable means to retain the unit in position on the face.

(4) If radio equipment is installed, the flightcrew oxygen dispensing units must be designed to allow the use of that equipment and to allow communication with any other required crew member while at their assigned duty station.

(b) If certification for operation up to and including 18,000 feet (MSL) is requested, each oxygen dispensing unit must:

(1) Cover the nose and mouth of the user; or

(2) Be a nasal cannula, in which case one oxygen dispensing unit covering both the nose and mouth of the user must be available. In addition, each

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nasal cannula or its connecting tubing must have permanently affixed—

(i) A visible warning against smoking while in use;

(ii) An illustration of the correct method of donning; and

(iii) A visible warning against use with nasal obstructions or head colds with resultant nasal congestion.

(c) If certification for operation above 18,000 feet (MSL) is requested, each oxygen dispensing unit must cover the nose and mouth of the user.

(d) For a pressurized airplane designed to operate at flight altitudes above 25,000 feet (MSL), the dispensing units must meet the following:

(1) The dispensing units for passengers must be connected to an oxygen supply terminal and be immediately available to each occupant wherever seated.

(2) The dispensing units for crewmembers must be automatically presented to each crewmember before the cabin pressure altitude exceeds 15,000 feet, or the units must be of the quick-donning type, connected to an oxygen supply terminal that is immediately available to crewmembers at their station.

(e) If certification for operation above 30,000 feet is requested, the dispensing units for passengers must be automatically presented to each occupant before the cabin pressure altitude exceeds 15,000 feet.

(f) If an automatic dispensing unit (hose and mask, or other unit) system is installed, the crew must be provided with a manual means to make the dispensing units immediately available in the event of failure of the automatic system.

[Amdt. 23–9, 35 FR 6387, Apr. 21, 1970, as amended by Amdt. 23–20, 42 FR 36969, July 18, 1977; Amdt. 23–30, 49 FR 7340, Feb. 28, 1984; Amdt. 23–43, 58 FR 18978, Apr. 9, 1993; Amdt. 23–49, 61 FR 5170, Feb. 9, 1996]

### § 23.1449 Means for determining use of oxygen.

There must be a means to allow the crew to determine whether oxygen is being delivered to the dispensing equipment.

[Amdt. 23–9, 35 FR 6387, Apr. 21, 1970]